

**Name:**

**Form:**

1	<p>Simplify these ratios:</p> <p><b>a</b> 18 : 24</p> <p><b>b</b> 8 : 2</p> <p><b>c</b> 24 : 6</p> <p><b>d</b> 56 : 8</p> <p><b>e</b> 4.5 : 2.4</p> <p><b>f</b> 0.21 : 0.6</p> <p><b>g</b> 2.5 : 3</p> <p><b>h</b> <math>3\frac{1}{2} : 2\frac{1}{5}</math></p>	
2	<p>Find the missing numbers:</p> <p><b>a</b> 6 : 7 = <math>\square</math> : 21</p> <p><b>b</b> 4 : 3 = 12 : <math>\square</math></p> <p><b>c</b> 7 : <math>\square</math> = 28 : 16</p> <p><b>d</b> <math>\square</math> : 3 = 48 : 36</p> <p><b>e</b> 1 : 18 = <math>3\frac{1}{2}</math> : <math>\square</math></p>	
3	<p>Simplify the following ratios:</p> <p><b>a</b> 6 m : 120 cm</p> <p><b>b</b> 200 g : 1.2 kg</p> <p><b>c</b> 45 min : 3 h</p> <p><b>d</b> 2 h : 6 min</p>	
4	<p>The following ingredients are used to make a coloured render cement:</p> <p style="padding-left: 40px;">2 parts cement, 6 parts sand, 3 parts lime, 4 parts colouring and 15 parts water</p> <p><b>a</b> What is the ratio of cement to water?</p> <p><b>b</b> What is the ration of cement to sand to lime?</p> <p><b>c</b> Express the ratio of each ingredient to the others in simplest form.</p> <p><b>d</b> Express the ratio of each ingredient to the total in simplest form.</p>	

**Skills Revision Ratio, Scale & Similar figures**

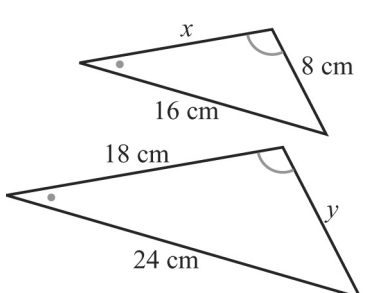
5 Cordial and water are combined in the ratio of 1 : 7.

a) How much water needs to be combined with 125 mL of cordial?

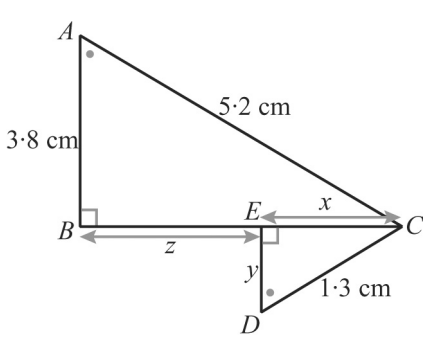
b) If I wanted to make 2 litres of the mixed drink, then how much of each do I need?

6 Find the value of the pronumerals in the following pairs of triangles:

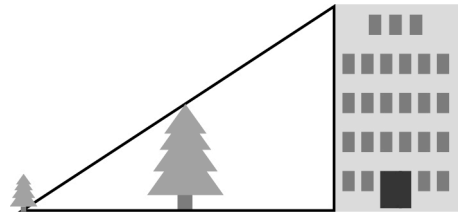
**a**



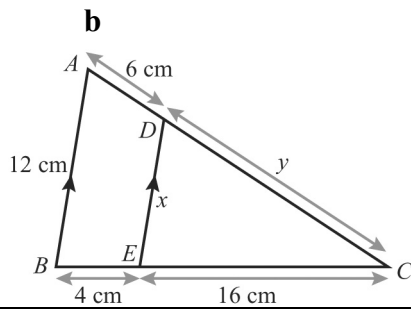
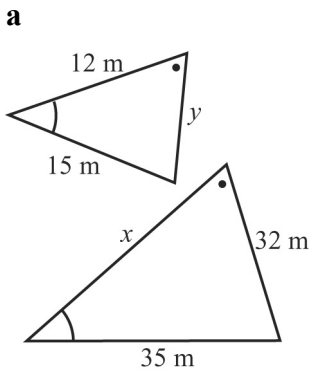
**b**



7 Tran wants to determine the height of the building. He stands 452 m away from the foot of the building. There is a tree 32 m in front of him, which is 20 m high. How tall is the building to the nearest metre.



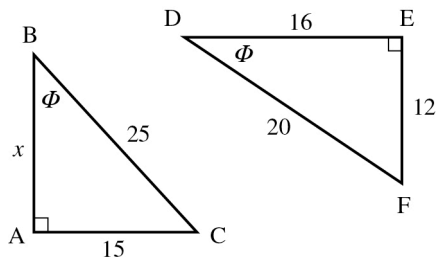
8 Find the value of the pronumerals in the following pairs of triangles:



9 In the triangles above  $\triangle ABC \sim \triangle DEC$ . What is the scale factor if  $\triangle ABC$  is regarded as the object?

10 Tell if the figures below are similar. If they are, give a reason and state the similar triangles using the symbol for similar ( $\sim$ ).

**a)**



**b)**

